

**THE EFFECTIVENESS OF CROSSWORD PUZZLE AND
WORD CHAIN GAME IN TEACHING VOCABULARY
AT MTS AL-ISLAM JORESAN, PONOROGO**

THESIS



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ABSTRACT

Setyawati, Anis. 2024. *The Effectiveness of Crossword Puzzle and Word Chain Game in Teaching Vocabulary at MTs Al-Islam Joresan, Ponorogo.* Sarjana's Thesis, English Language Teaching Department, Faculty of Tarbiyah and Teacher Training, State Islamic Institute of Ponorogo. Advisor: Dr. Ahmadi, M. Ag

Keywords: *Crossword Puzzle, Word Chain Game, Teaching Vocabulary*

This study investigates the effectiveness of crossword puzzle and word chain game, in teaching vocabulary at MTs Al-Islam Joresan, Ponorogo. The background of this research stems from the recognized importance of vocabulary acquisition in language learning, particularly in the context of English as a foreign language (EFL) instruction. This study was initiated following a series of interviews with school teachers, which revealed a significant deficiency in students' vocabulary skills. The teachers highlighted that many students struggled with understanding and using new words effectively. In response to this issue, the researcher decided to explore the potential of interactive and engaging learning tools to address these vocabulary gaps. Specifically, the study employed active media such as crossword puzzle and word chain games. These tools were chosen for their ability to make learning more enjoyable and to actively engage students in the learning process. Through this approach, the researcher aimed to provide valuable insights and practical solutions for enhancing vocabulary acquisition in the classroom.

The question of this research is do students who are taught by using crossword puzzle and word chain game have better vocabulary mastery than those who are not taught by using those media? and the primary objective of this research is to determine whether students who are taught using crossword puzzle and word chain games have better vocabulary mastery compared to those who are not taught using these media.

The study employs a quasi-experimental design, involving pre-tests and post-tests to measure the impact of the interventions. The participants consist of two groups: the experimental group, which receives instruction incorporating crossword puzzle and word chain game, and the control group, which follows conventional teaching methods.

The results indicate students who are taught using crossword puzzle and word chain games tend to have better vocabulary mastery compared to those who are not taught using these media. The interactive and engaging nature of these tools helps students learn and retain new vocabulary more effectively. Through the analysis of pre-test and post-test scores, as well as student feedback, it is evident that the implementation of crossword puzzle and word chain games effectively enhances students' vocabulary mastery. These findings underscore the importance of integrating interactive activities into language instruction to foster a more dynamic and effective learning environment. Ultimately, this research provides valuable insights for educators seeking innovative approaches to enhance students' language skills and academic success.

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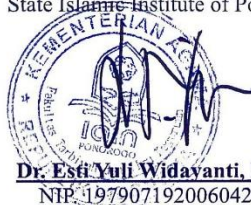
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Thank you for your attention to this matter.

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Sincerely,



(Anis Setyawati)

CHAPTER I

INTRODUCTION

A. Background of the Study

Education plays a fundamental role in the development and advancement of a society. Improving the quality of education has a significant impact on the development of individuals and communities as a whole. In the current era of rapid information technology advancement, the education sector faces a significant challenge in harnessing digital resources optimally in the learning process. One of the most notable developments in this context is the use of educational games, which can be presented in various formats, ranging from online to offline.¹

Vocabulary, or vocabulary, plays a crucial role in the process of learning the English language.² The ability to understand, recall, and use various words is a fundamental foundation for effective communication. As one progresses in expanding their vocabulary, they become capable of expressing ideas, emotions, and thoughts more precisely and richly. The significance of vocabulary becomes especially apparent when engaging in everyday conversations or formal situations such as presentations, interviews, or writing. A broad vocabulary provides confidence to speak fluently and construct coherent sentences. Furthermore, a good understanding of vocabulary enables us to comprehend reading materials

¹ Ningsih, Ni Luh Ayu Budi Hari. "The Importance of Game-Based Learning in English Learning for Young Learners in the 21st Century." *The Art of Teaching English as a Foreign Language* 4 (2023): 25-30.

² Khan, Raja Muhammad Ishtiaq, et al. Learners' Perceptions on WhatsApp Integration as a Learning Tool to Develop EFL Vocabulary for Speaking Skill. *International Journal of Language Education* 5 (2) (2021). 1-14

and listen more attentively. The process of building vocabulary can be accomplished through various means, including reading books, articles, and news in English.³ Getting accustomed to listening to songs (Utami 2021) or watching films and television shows in English also helps in expanding vocabulary. (Tumengkol 2022) Additionally, participating in conversations with native speakers or fellow English learners provides opportunities to apply learned words. It is not only crucial to understand the meanings of words but also to comprehend their context of use in sentences. This helps to avoid misunderstandings and ensures that we can use words appropriately in different situations.

By enhancing vocabulary, an individual can also develop better writing skills.⁴ Choosing the right words provides clarity and precision in conveying ideas, making written expression more persuasive and convincing. In essence, building vocabulary is not just about memorizing words but also about understanding, associating, and using them correctly. It is an essential step in the journey towards comprehensive and impressive mastery of the English language.

Offline games are one of the forms of entertainment available on various devices. For children, offline games can serve as a useful tool or learning medium. When educational features are activated, they can assist children in the learning process while maintaining their focus on positive playing activities, achieving dual objectives in learning through offline

³ Hoyne, Clara & Egan, Suzanne M. Shared Book Reading in Early Childhood: A Review of Influential Factors and Developmental Benefits. *An Leanbh Og*, 12(1) (2019), 77-92.

⁴ Suryadi, suryadi, et al. The Use of Banten Folklore and Vocabulary Mastery on The Students' Narrative Text Writing Skill. *Ethical Lingua* 9 (1) (2022). pp 107-114

games. Various offline games can enhance students' English language skills, such as Scrabble, Word Search, Hangman, Crossword Puzzle, Word Chain Game, Boggle, Story-Based Games, Board Games, Role-Playing Games, and Puzzle Games. The choice of games depends on the students' skill levels, but consistent play can improve their English language proficiency in an enjoyable manner.⁵

One of the highly popular and engaging games to play is Crossword puzzle and Word Chain Game. Both of these games not only entertain but also actively engage children in critical thinking and problem-solving. Crossword puzzle is a type of word puzzle that requires players to fill in blank squares with words that fit the given clues, necessitating creative and analytical thinking, as well as the ability to connect various concepts and knowledge.⁶ Meanwhile, Word Chain Game is a game that tests children's ability to form words from given letters, requiring players to utilize their language skills to find the correct words within a specified time frame. Both games not only offer enjoyment but also provide valuable educational benefits, aiding in the enhancement of language skills, vocabulary, critical thinking, and strategy, while also improving problem-solving abilities and perseverance. Therefore, Crossword puzzle and Word Chain Game are excellent choices of games to motivate children to learn while playing, not

⁵ Solares, Analiza S. "VOGPro (Vocabulary Offline Gamification Program) and the Academic Vocabulary Skills of Grade 12 Students of Kalanawe II National High School." *International Journal of Open-Access, Interdisciplinary & New Educational Discoveries of ETCOR Educational Research Center (iJOINED ETCOR) 2* (2023): 923-933.

⁶ Kasor, Anisah. "The Influence Of Using Crossword Puzzle Towards Students' Vocabulary Mastery At The Second Semester Of The Seventh Grade Of Smpn 24 Bandarlampung In The Academic Year Of 2017/2018". A Thesis Raden Intan State Islamic University Lampung (2018): 1-220

only entertaining but also aiding in the development of various skills that will be beneficial for both academic and personal growth.

This research is conducted at MTs Al-Islam Joresan, Ponorogo, a school located in an urban fringe area. The selection of this school is driven by its junior social relevance, as the study aims to provide valuable insights into how the use of offline educational games like Crossword Puzzle and Word Chain Game influences the vocabulary mastery of students at MTs Al-Islam Joresan, Ponorogo. This study was initiated following a series of in-depth interviews with school teachers, which revealed a significant deficiency in students' vocabulary skills. The feedback from the teachers underscored a common challenge, many students struggled not only with understanding new words but also with using them correctly in context. This issue was identified as a critical barrier to their overall language proficiency and academic success.

In response to this pressing issue, the researcher decided to investigate innovative teaching methods that could bridge these vocabulary gaps. Traditional teaching methods appeared insufficient in maintaining students' interest and engagement, leading to suboptimal learning outcomes. Therefore, the researcher focused on the potential of interactive and engaging learning tools to enhance vocabulary acquisition.

Specifically, the study employed active media such as crossword puzzle and word chain games. These tools were chosen for several compelling reasons. Firstly, crossword puzzle are known for their effectiveness in promoting critical thinking and problem-solving skills. They require

students to recall and apply vocabulary in a fun and challenging way, reinforcing their memory through repeated exposure and usage.

Secondly, word chain games offer a dynamic and collaborative learning experience. These games encourage students to think creatively and make connections between words, which helps in deepening their understanding and retention of vocabulary. The competitive element of the games also motivates students to participate actively and strive for better performance.

The choice of these tools was grounded in educational theory and research, which suggest that games can significantly enhance student engagement and achievement. By incorporating these interactive methods into the classroom, the researcher aimed to create a more stimulating and effective learning environment. This research is initiated due to the limitations of previous studies. Research on this topic may not have been extensively conducted in urban fringe environments, as there is a prevalent perception that all educational methods are more effective when utilizing online and technological approaches. Therefore, this study presents a potentially valuable contribution to academic literature. Through this research, we aim to broaden our understanding of the use of offline educational gaming methods and their impact on students' language skills. As a result, the research at MTs Al-Islam Joresan, Ponorogo is expected to help fill knowledge gaps and provide a more comprehensive view of how Crossword Puzzle and Word Chain Game as educational game plays a role in improving students' language skills in senior high school. This is crucial

in efforts to enhance the quality of education and offer solutions that are relevant to the specific needs in senior high school.

Using offline educational games like crossword puzzle and word chain game can significantly enhance student's vocabulary mastery because these games have the ability to motivate students with a higher level of enthusiasm. This results in a more engaging learning experience compared to the monotonous classroom environment, making students more eager to participate in their studies.

However, more in-depth research is still required to measure the extent to which the use of Crossword Puzzle and Word Chain Game, significantly impacts students' abilities to comprehend and apply vocabulary mastery especially in the English language. This is an important consideration, given that English language proficiency plays a key role in education and prepares students for future challenges. The aim of this study is to investigate the determine whether students who are taught using crossword puzzle and word chain games have better vocabulary mastery compared to those who are not taught using these media. The results of this research are expected to provide deeper insights into the effectiveness of active learning strategy using Cossword Puzzle and Word Chain Game in the context of secondary education. This research will establish a solid foundation for the development of more innovative and effective teaching medias. Therefore, it is expected that this research will provide significant benefits to teachers, students, and education stakeholders at MTs Al-Islam Joresan, Ponorogo and the broader education community.

B. Identification of The Problem

The identification of the problem revolves around the need to understand the efficacy of Crossword Puzzle and Word Chain Game in teaching vocabulary at MTs Al-Islam Joresan, Ponorogo. Despite the growing popularity of educational games as a supplementary learning tool, particularly in language acquisition, there is a gap in knowledge regarding their specific impact on vocabulary proficiency among junior school students in the context of MTs Al-Islam Joresan, Ponorogo. Thus, it is imperative to investigate whether Crossword Puzzle and Word Chain Game effectively contribute to the enhancement of student's language skills within this educational setting.

C. Limitation of the Study

This research only focuses on junior high school students at MTs Al-Islam Joresan, Ponorogo. This means it does not cover the entire school or all levels of education. In this strategy also use only two offline educational games for students, Crossword Puzzle and Word Chain Game, which means not all types of games are used. The abilities discussed are limited to vocabulary mastery, which means the researcher will not delve into other areas of skill.

D. Statement of The Problem

Based on the background above, the researcher formulates several research questions as follow:

Do students at Mts Al-Islam Joresan, Ponorogo who are taught by using crossword puzzle and word chain game have better vocabulary mastery than those who are not taught by using those media?

E. Objectives of the Study

Based on the problem statement above, the researcher formulates several research objectives as follows:

To determine whether students who are taught using crossword puzzle and word chain games have better vocabulary mastery compared to those who are not taught using these media at MTs Al-Islam Joresan Ponorogo

F. Significances of the Study

Based on the explanations of the research objectives, the researcher hopes to provide the following benefits to all parties involved:

a. Theoretical Benefits:

1. This research will offer a deeper understanding of Crossword Puzzle and Word Chain Game in teaching students' vocabulary at junior high school.
2. The research results can be a significant contribution to the academic literature in the fields of education. The research findings can serve as references for other researchers interested in similar topics.
3. The research findings can assist in refining teaching media in schools and educational institutions. This can form the basis for the

development of more effective pedagogical approaches, especially in vocabulary instruction at the junior high school level.

b. Practical Benefits:

1. With a better understanding of the effective of using Crossword Puzzle and Word Chain Game in teaching vocabulary, educators can develop more effective teaching medias. This can enhance the quality of education received by students at MTs Al-Islam Joresan, Ponorogo
2. The research will aid educators at MTs Al-Islam Joresan, Ponorogo, in selecting teaching approaches that are better aligned with their students' needs.
3. The research results will yield practical recommendations that can be utilized by educators and educational institutions to integrate more kind of learning strategies and educational games into vocabulary instruction. These recommendations will provide guidance for decision-making at the school level.

G. Organization of Thesis

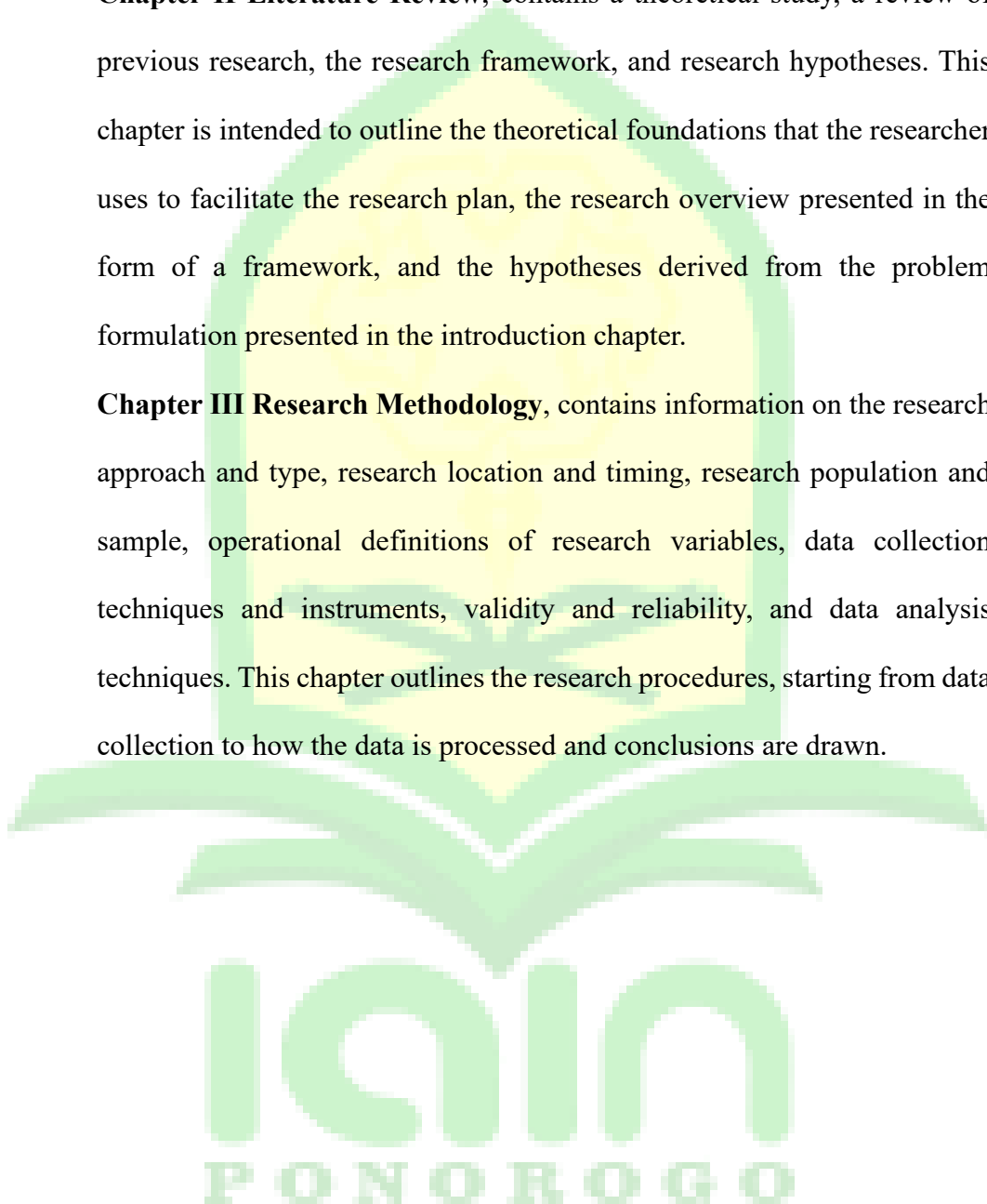
The structure of the discussion in this research proposal is divided into three sections:

Chapter I Introduction, which includes the background of the problem, problem identification, problem limitations, problem formulation, research objectives, research benefits, discussion structure, and research schedule. In this chapter, it will explain the importance of understanding the

effectiveness of crossword puzzle and Word Chain Game in teaching ' vocabulary while remaining focused on the issues outlined in the problem formulation.

Chapter II Literature Review, contains a theoretical study, a review of previous research, the research framework, and research hypotheses. This chapter is intended to outline the theoretical foundations that the researcher uses to facilitate the research plan, the research overview presented in the form of a framework, and the hypotheses derived from the problem formulation presented in the introduction chapter.

Chapter III Research Methodology, contains information on the research approach and type, research location and timing, research population and sample, operational definitions of research variables, data collection techniques and instruments, validity and reliability, and data analysis techniques. This chapter outlines the research procedures, starting from data collection to how the data is processed and conclusions are drawn.



CHAPTER II

LITERATURE REVIEW

A. Theoretical Background

1. Constructivism Theory

Constructivist theory is one of the approaches in educational psychology that focuses on how individuals construct their own knowledge and understanding from experiences. This theory emphasizes that learning is an active process in which students not only passively receive information but actively construct their own knowledge through interaction with the environment and reflection on those experiences. Several prominent experts in the field of constructivism have articulated their perspectives on this theory. Jean Piaget, one of the primary figures in the development of constructivism, emphasizes that children play an active role in the formation of their knowledge through interaction with their environment. Lev Vygotsky highlights the significant role of social interaction in learning⁷, while Jerome Bruner advances the concept of constructivism by emphasizing the importance of "*cognitive structure*" in understanding information. John Dewey underscores the importance of direct experience in learning, while Seymour Papert introduces the concept of constructivism within the context of technology, developing the notion of knowledge construction through interaction with computers, known

⁷ Saputro, M. Nugroho Adi & Pakpahan, Poetri Leharia. Measuring the Effectiveness of Constructivist Theory in Learning. JOEAI (Journal of Education and Instruction), Vol 4 (1). (2021): 24-39

as computer-based constructivism or "*constructionism*."⁸ The basic principles of constructivist theory include several key aspects.

Firstly, learning as an active process. In the constructivist view, students play an active role in the learning process.⁹ They integrate new information with prior knowledge to build deeper understanding. Secondly, knowledge as personal construction. Knowledge is not something that can be directly transmitted by the teacher but must be constructed by the students themselves. Each student has a unique perspective that influences how they process information and construct knowledge. Thirdly, social interaction and collaboration. Constructivist learning emphasizes the importance of social interaction and collaboration. Through discussion and cooperation with peers, students can expand their understanding and see various perspectives.¹⁰ Fourthly, contextualization of learning. Constructivist theory emphasizes that learning should be contextual and relevant to students' real-life experiences. By connecting lesson material with students' experiences and interests, learning becomes more meaningful and effective. Fifthly, reflection and metacognition. Reflection is an important process in constructivist learning. Students are encouraged to

⁸ Hermanto, Muhammad & Jayana, Thoriq Aziz. John Dewey's Constructivist Learning Theory and Its Implementation in Islamic Religious Education Learning. *BESTARI: Jurnal Studi Pendidikan Islam*, Vol. 20 (1). (2023): 23-34

⁹ Arifah, Resti & Marzuki, Ismail. Constructivism Theory of Learning Solutions During The Covid-19 Pandemic in Indonesia. *International Journal of Education, Information Technology and Others (IJEIT)*, Vol. 4 (1). (2021): 91-96

¹⁰ Rahmayani, Putri, et al. Application of Constructivism Theory of Cooperative Learning Model in Learning. *Literasi Nusantara*, Vol 2 (1a). (2021): 415-423

reflect on what they have learned, how they have learned it, and how they can apply new knowledge in other situations.

In the context of teaching vocabulary at MTs Al-Islam Joresan, constructivist theory can be implemented through the use of games such as crossword puzzle and word chain games. Both methods support constructivist principles in several ways. Interactive learning activities, such as crossword puzzle and word chain games, demand active student participation. They have to search for, identify, and connect words, which encourages deeper cognitive engagement. Collaboration and discussion are also reinforced through these games, which can be done in groups. Through peer discussion, students can share knowledge, solve problems together, and build collective understanding. Contextual experience is also part of the application of constructivist theory. Crossword puzzle and word chain games can be tailored to themes or contexts relevant to students' lives, for example, using words related to topics being studied in class or students' personal interests, making learning more meaningful. Additionally, reflection and self-assessment are also integral parts of these methods. After completing the puzzle or games, students can be encouraged to reflect on the strategies they used, the words they learned, and how they can apply new vocabulary in other contexts.

By applying constructivist theory through interactive and contextual learning methods such as crossword puzzle and word chain games, it is hoped that vocabulary teaching at MTs Al-Islam Joresan

becomes more effective and engaging. This approach enables students to construct their language knowledge better and more applicably, as well as enhancing their engagement and motivation in the learning process.

2. Communicative Language Teaching

Communicative Language Teaching (CLT) is an approach that has become foundational in language learning since the late 20th century. The primary focus of CLT is on students' ability to communicate effectively and authentically in the target language. This approach emerged in response to the limitations of traditional language teaching methods, which emphasized grammar mastery and translation. CLT developed in the 1970s and 1980s as a reaction against the Audio-Lingual and Grammar-Translation methods, which were deemed inadequate for producing fluent and confident language users.¹¹ For instance, the Audio-Lingual method overly emphasized pattern drills and repetition, while the Grammar-Translation method focused on translating texts and learning grammar rules without practical application.

The communicative approach is influenced by linguists like Noam Chomsky, who emphasized the creativity and innate ability of humans to generate and comprehend novel sentences.¹² Additionally, the

¹¹ Santos, Luis Miguel Dos. The Discussion of Communicative Language Teaching Approach in Language Classrooms. *Journal of Education And e-Learning Research*, Vol. 7 (2). (2020): 104-109

¹² Hakim, Izzudin A. Exploring The Challenges of Communicative Language Teaching in Indonesian Context from a Constructivist Perspective. *ELS Journal on Interdisciplinary Studies in Humanities* Vol. 5(1). 2022: 1-11

functional and notional views proposed by linguists such as Michael Halliday and Dell Hymes also shaped the theoretical foundation of CLT, with a focus on using language for various communicative functions and in diverse social contexts.¹³

The core principles of CLT encompasses several key aspects.¹⁴ Firstly, the focus on communication means that practice and learning activities should enable students to use the target language in real and meaningful situations. Secondly, the use of authentic language involves using materials and tasks in CLT classrooms that often consist of texts and situations students might encounter outside the classroom. Thirdly, student interaction, whether in pairs or groups, is highly encouraged so that students can practice communication, negotiate meaning, and build confidence in using the target language. Fourthly, there is a focus on all language skills—not just speaking, but also listening, reading, and writing—with the integration of these skills in meaningful activities. Lastly, the role of the teacher in CLT is that of a facilitator and guide, who creates a supportive learning environment where students feel comfortable to try and make mistakes.

The implementation of CLT in the classroom involves various strategies and activities, such as role-playing and simulations that allow students to practice language in different social contexts, discussions

¹³ Fathurrochman, Irwan. A Progress in English Language Teaching Approach: CLT to Context Approach. *The Middle East International Journal for Social Sciences (MEIJSS)* Vol 1 (2). (2019): 54-58

¹⁴ Qasseras, Lhoussine. Systematic Review of Communicative Language Teaching (CLT) In Language Teaching (CLT) in Language Education: A Balanced Perspective. *European Journal of Education and Pedagogy*, Vol 4 (6). 2023: 17-23

and debates that encourage students to express opinions and listen to others' views, games and problem-solving tasks that enhance student engagement and motivation, as well as project-based tasks that enable students to use the target language in real projects relevant to their interests.

The benefits of CLT include improving students' ability to communicate effectively in real-life situations, increasing student motivation and engagement through the use of interesting and meaningful activities, and developing critical thinking skills and the ability to collaborate with others. However, CLT also presents challenges, such as requiring thorough preparation and planning by the teacher, potentially facing resistance from students accustomed to traditional teaching methods, and demanding teachers' ability to create and manage complex and dynamic activities.

Overall, Communicative Language Teaching has revolutionized the way languages are taught and learned, emphasizing the importance of using language in real communicative contexts. Despite the challenges in its implementation, CLT offers an effective and engaging approach to developing holistic language skills that are functional in everyday life.

3. Crossword Puzzle

According to Hornby, a crossword puzzle is a type of word puzzle game where players are required to write words related to numbered

clues, both vertically and horizontally, into the blank spaces provided in the squares. In the process, players must solve the puzzle by finding words that correspond to the given clues, thus forming a coherent whole. This game involves a combination of vocabulary knowledge and puzzle-solving skills, offering an engaging challenge for players to enhance their critical thinking abilities and vocabulary.¹⁵

Below are the steps to play crossword puzzle in the classroom:

- a) Prepare the Crossword Puzzle: Create or download a crossword puzzle that suits the class level and the current subject matter. Ensure that the crossword puzzle has sufficient clues and boxes to accommodate all students in the game.
- b) Distribute the Crossword Puzzle: Provide copies of the crossword puzzle to each student in the class.
- c) Provide Instructions: Explain the rules of the game to the students, including how to write answers vertically or horizontally according to the given clues.
- d) Provide Examples: Demonstrate how to solve the crossword puzzle to the students. Provide them with an understanding of how to read the clues and search for appropriate words.
- e) Allocate Time: Allocate sufficient time for students to complete the crossword puzzle. Ensure that the given time is adequate to

¹⁵ S.Wijaksono, Dwi Nur Hadiyansah, & Siddik, Ainun Habiba Ramadani. The Effectiveness of Using Crossword Puzzle Games Through Student's Vocabulary Mastery. JOEY: Journal of English Ibrahimy 1(1). (2022): 1-10

tackle the challenges provided, but not too long that students lose interest.

- f) Provide Feedback: After the designated time elapses, provide feedback to the students on correct and incorrect answers. Discuss answers that caught attention or may have caused confusion.
- g) Rewards (Optional): If desired, award prizes to students who successfully complete the crossword puzzle correctly or provide creative answers.
- h) Reflection: Conclude the session with a brief reflection on the experience of playing the crossword puzzle. Discuss what students have learned from the game and how it can help reinforce their understanding of the subject matter.

By following these steps, teachers can effectively play crossword puzzle in the classroom as an interactive and enjoyable learning tool.

Scientific studies have concluded that crossword puzzle have a significant positive impact on cognitive development and learning. One of the primary benefits is vocabulary expansion, where players are continuously exposed to a variety of new words that they can learn and remember. Additionally, crossword puzzle stimulate critical thinking skills, as players must sharpen their analytical and logical abilities to find the correct answers. This can also enhance self-confidence, as players feel a sense of accomplishment when they successfully complete a puzzle. Furthermore, active engagement in solving crossword puzzle

can expedite learning capacity, as learning occurs in a practical and direct manner. Moreover, crossword puzzle serve to alleviate the burden of passive rote memorization, which is often perceived as tedious by students. By participating in this enjoyable game, students are more likely to remember terms, clues, and course content in a more effective and engaging manner. Additionally, some studies suggest that active engagement in cognitive-stimulating activities like crossword puzzle may have therapeutic potential in addressing conditions such as preclinical dementia. By improving cognitive reserves, regular engagement in crossword puzzle can help maintain brain health and slow the decline of cognitive function in adults vulnerable to such conditions. Therefore, the use of crossword puzzle is not only beneficial in an educational context but also holds the potential to enhance brain health and overall quality of life.¹⁶

The advantages of employing crossword puzzle in the teaching experience of educators should not be underestimated, particularly based on the findings disclosed by Sukirman & Ningsih (2016). They underscore that crossword puzzle not only aid in vocabulary training for students but also play a role in sustaining their interest in the learning material and honing their critical thinking abilities. Another study conducted by Dhand in 2008 adds another crucial dimension, indicating that crossword puzzle significantly enhance students' vocabulary

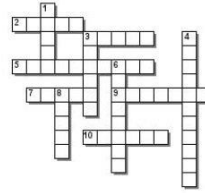
¹⁶ Patrick, Shilpa, et.al. The Usefulness of Crossword Puzzle as a Self-Learning Tool in Pharmacology. *JAMP: Journal of Advance in Medical Education and Professionalism* 6(4). (2018): 181-185

mastery overall. Furthermore, the findings of Profita in 2012 provide stronger affirmation regarding the benefits of crossword puzzle in English language learning. Apart from enhancing students' vocabulary, Profita discovered that the utilization of crossword puzzle also stimulates students' learning enthusiasm, prompting them to engage more intensively in the learning process. This suggests that crossword puzzle serve not only as effective aids in expanding students' vocabulary but also function as potent stimuli for their learning motivation. Thus, it can be concluded that crossword puzzle have positive and diverse impacts in the context of English language instruction, contributing to the creation of a more dynamic and stimulating learning environment.¹⁷

Karim and Hasbullah (1986) have identified that despite the significant advantages of crossword puzzle, they are also accompanied by several shortcomings that need to be considered. One of the main drawbacks is that sometimes crossword puzzle remain confusing for students, leading to difficulties in completing them when the clues are unclear. Additionally, English teachers also face challenges in designing crossword puzzle that align with students' levels of understanding and needs. Finally, changes in educational trends indicate that students nowadays tend to be more interested in playing crossword puzzle

¹⁷ A'yunin, Rina & Aminin, Zainal. Teacher's Voice Using Crossowrd Puzzle Games to Improve Student's Vocabulary. *RETAIN (Research on English Language Teaching in Indonesia)*, Vol. 11 (2). (2023):8-14

through their gadgets, which may influence their learning and interaction with course materials.¹⁸



Across
2 - flower; Dutch flower from a bulb
3 - Sow these in the ground and they grow
5 - A day for moms; holiday
7 - Sign of spring; bird
9 - April showers bring May _____
10 - A small pool of water

Down
1 - Farmers _____ crops
3 - Season after Winter
4 - Bug that turns into a butterfly
6 - flower; yellow or white
8 - Spring _____ vacation

Figure 2.1 Crossword Puzzle Game

4. Word Chain Game

As elucidated by Decure (1993:31), Word Chain is a game relying on the concept where the end of one word becomes the beginning of the next. In this context, words are interconnected continuously, creating a cohesive and challenging sequence for the players. However, beyond merely connecting words based on their beginnings and endings, this concept also demands a high level of linguistic intelligence.

According to Vetter's explanation (2006:4), in Word Chain, each word in the sequence differs by only one letter from the previous word.¹⁹ This adds a dimension of uniqueness and distinctiveness to the game. Players are required to string together words by carefully observing each letter and ensuring that changes occur in only one character. As a result, Word Chain becomes not only a simple game but also a cognitive

¹⁸ Imbenay, Jocelinne Oktorinna Inggerus & Katemba, Caroline V. Increasing Students' Vocabulary Through Online Crossword Games.

¹⁹ Abbas, M. Fadhly Farhy. Applying Word Chain Game to Improve Student's Vocabulary Mastery: 44-48

exercise that requires precision and careful analytical thinking. In practical terms, this game is often utilized as a tool to train language skills and expand one's vocabulary. Through the process of searching for interconnected words, players indirectly expose themselves to various new words and linguistic relationships among them. This can enhance understanding of language structure and enrich one's communication abilities. However, it's important to note that success in Word Chain depends not only on one's language proficiency but also on the ability to think quickly and flexibly. Players must adapt rapidly to the available words and find the appropriate connections instantly. Therefore, this game also serves as a test of creativity and speed of thought.

Overall, Word Chain is more than just a word game. It presents a challenge that stimulates the mind and enriches understanding of language. With its simple yet challenging concept, Word Chain continues to be one of the popular and educational games among language enthusiasts and puzzle lovers worldwide.

In playing the word chain game, participants actively employ their creativity and vocabulary knowledge to construct and extend word sequences. Within the dynamics of this game, participants are challenged to refine their quick thinking abilities and linguistic skills. The fundamental concept of this game involves using the last letter of the preceding word as the beginning of the next word, thereby creating an evolving chain of words. Throughout the process, participants must be capable of observing both the last letter of the previous word and the

words already utilized to avoid repetition. Each selected word must be relevant and allow for seamless connection to the subsequent word. This necessitates strategic thinking and sensitivity to word patterns. The provided sequence of words, such as "Love", "Eat", "Tea", "Apple", "Ear", offers insight into how participants can expand word sequences while adhering to the fundamental rules of the game. Although appearing straightforward, this game cultivates language proficiency and stimulates players' imaginations to seek out creative and unique words at each turn. Consequently, the word chain game not only offers enjoyment in playing but also serves as a beneficial exercise for the development of language skills and creative thinking abilities. This is why the game remains popular and entertaining for various demographics, including children and adults alike.²⁰

The utilization of word chain games in vocabulary learning yields various significant benefits for students. Firstly, these games create a enjoyable and engaging learning environment, directly enhancing students' interest in vocabulary acquisition. Consequently, students are more motivated to actively participate in the learning process. Furthermore, through interactions facilitated by these games, students' speaking abilities are gradually enhanced. They learn to construct words correctly and express them confidently. Moreover, word chain games assist students in remembering and internalizing the vocabulary they learn. By repeatedly practicing the use of these words within the game

²⁰ Ramadani, Wahyuni, et.al. The Influence of Word Chain Game on Increasing The Eight Grade Student's Vocabulary at MTS Barana Jenepono. Vol 2 (1). (2020): 1-11

context, new vocabulary becomes easier to recall and remains ingrained in students' minds for longer periods. This not only improves students' recall skills but also enriches their vocabulary repertoire. In addition to cognitive benefits, these games also have positive effects on students' social aspects. By encouraging active participation in the teaching-learning process, these games help develop skills in teamwork, communication, and leadership. Students learn to collaborate as a team, share ideas, and provide support to one another. Equally important, word chain games provide additional inspiration and motivation to students. They feel a sense of accomplishment when they can smoothly use vocabulary and receive praise from peers and teachers. This ignites their enthusiasm to continuously improve their speaking skills and become more confident communicators.

Thus, it can be concluded that the use of word chain games not only enriches students' learning experiences but also aids them in achieving learning objectives more effectively. It serves as a valuable tool in shaping students into active, engaged, and proficient learners in speaking skills.

The weakness of the Word Chain game lies in the requirement for a high level of concentration, focus, and understanding of the given instructions in order to succeed within it. As the game provides numerous cues to guide students, they must pay close attention to each cue to progress effectively. However, this task is not always easy, as the abundance of cues can render the game complex and confusing for some

students. Furthermore, another challenge of the Word Chain game is the presence of many blanks within the word chain itself. When students encounter words they cannot fill in, it can hinder their ability to construct a smooth flow of words. Consequently, the speaking skills and vocabulary of students may not develop as expected. Apart from the students' perspective, the success of implementing the Word Chain game also heavily relies on the teacher's ability to manage the class effectively. Teachers must be capable of clearly explaining the rules of the game, providing appropriate guidance when needed, and ensuring that all students are actively engaged in the activity. When teachers fail to fulfill their role effectively, it can disrupt the flow of the game and diminish the learning benefits that students can derive from it.

As a result, if students are unable to maintain focus and seriousness during the game, the likelihood of misunderstanding and miscommunication may increase. This can diminish the expected effectiveness of learning from the Word Chain game and impede students' progress in developing their language skills.²¹

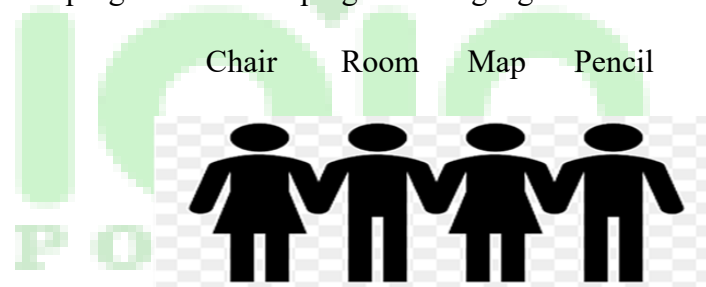


Figure 2.2 Word Chain Game

²¹ Wafiroh, Lu'luul. "The Implementation of Word Chain Game to Improve Students' Speaking Skill of The Second Grade at MTS. Annuriyyah Jember". *Undergraduate Thesis*. State Institut of Islamic Studies of Jember. (2020):1-70

5. Vocabulary

The ability to master vocabulary is one of the primary foundations in the language learning process.²² Vocabulary encompasses all the words and phrases used in a language, and it is an essential component in effective communication. When someone is learning a language, whether it's their native language or a foreign one, understanding and mastering vocabulary becomes a crucial cornerstone. It's important to remember that vocabulary encompasses not only words but also phrases, idioms, and expressions used in the language. Therefore, in the process of language learning, vocabulary development should be a primary focus. There are numerous methods that can be employed to enhance one's vocabulary, such as reading, writing, listening, speaking, and utilizing applications or online learning resources. Some definitions of vocabulary according to experts are as follows:

- a) George Yule: In his book "The Study of Language," Yule defines vocabulary as "a list of words used by or known to a language speaker."²³
- b) David Wilkins: Wilkins describes vocabulary as "a set of words used by language speakers in communication."
- c) Paul Nation: According to Nation, vocabulary is "words necessary for communication in a particular language."

²² Amelya Baiti Nur'aini, Juita Triana, Luana Fogl. "The Analysis of Word Formation in Movie "Wonder" and Its Application in Teaching Vocabulary." *English Departement Journal 8* (2021): 20-27.

²³ Yule, George. *The Study of Language*. Fourth Edition. Cambridge: Cambridge University Press, 2010.

d) Michael McCarthy and Felicity O'Dell: In their book "English Vocabulary in Use," they define vocabulary as "a collection of words used in a specific language."²⁴

e) J.R. Hurford, B. Heasley, and M. B. Smith: In their book "Semantics: A Coursebook," they portray vocabulary as "a list of words mastered by language speakers and listeners as pieces of language."²⁵

All of these definitions portray vocabulary as a collection of words used or known by an individual in a specific language. Vocabulary is crucial in understanding and using a language, and vocabulary development is an essential part of language learning. The role of vocabulary in the English language is as follows:

a) Vocabulary is essential for effective communication in English.

It provides the words and phrases needed to convey thoughts, ideas, and information to others. Without a sufficient vocabulary, it can be challenging to express oneself clearly.

b) Reading and Comprehension: A strong vocabulary is crucial for reading and understanding written texts in English. Readers need to recognize and comprehend the words and phrases used in

²⁴ O'Dell, Michael McCarthy and Felicity. "English Vocabulary in Use." (Cambridge University Press) : 1-297.

²⁵ James R. Hurford, Brendan Heasley, and Michael B. Smith. Semantics: A Coursebook. Second Edition. Cambridge: Cambridge University Press, 2007.

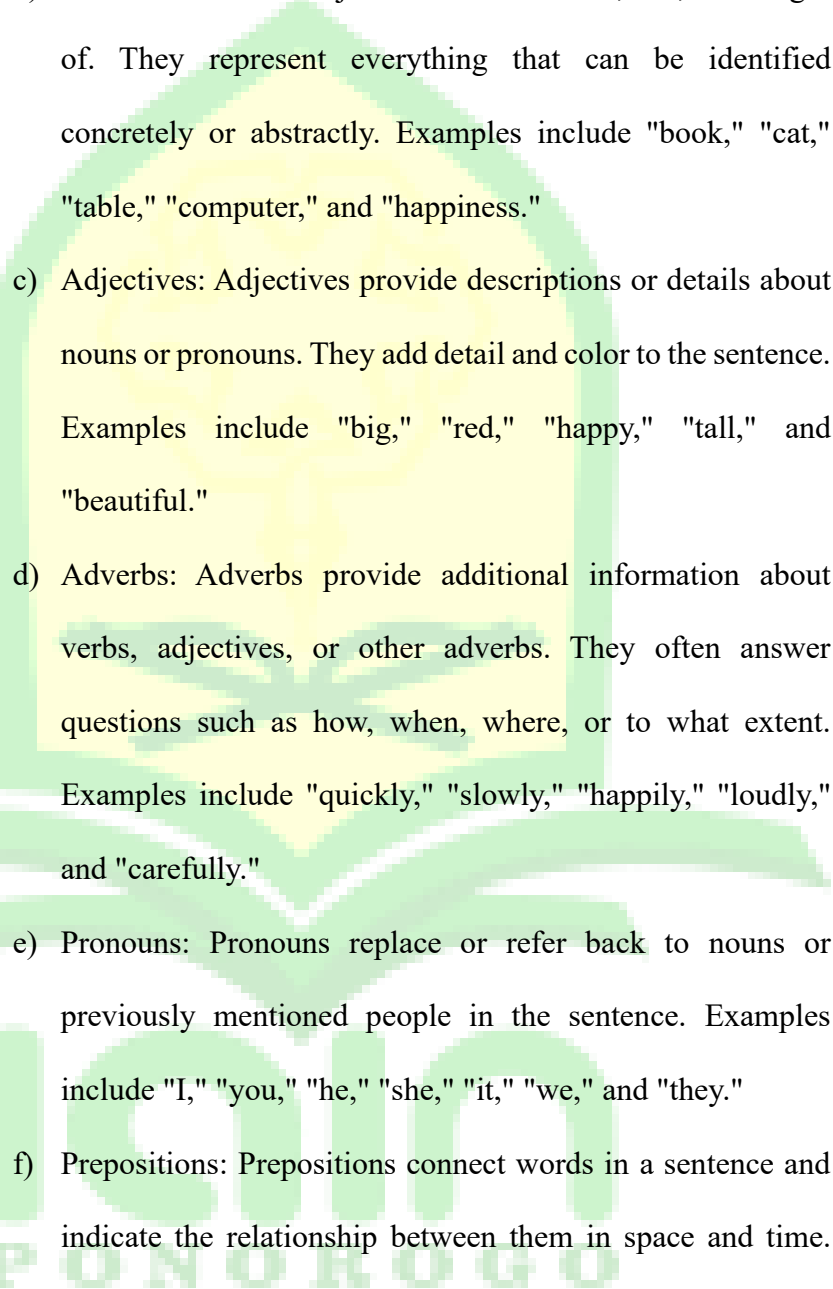
various materials, from books and articles to websites and academic papers.²⁶

- c) Writing: When writing in English, a rich vocabulary allows individuals to convey their thoughts and ideas with precision and depth. It enables the use of a variety of words and expressions to make writing more engaging and informative.
- d) Listening and Understanding: In listening comprehension, a well-developed vocabulary is vital for understanding spoken English. It helps individuals grasp the meanings of words, phrases, and context in conversations, lectures, or audio materials.
- e) Speaking and Expression: Vocabulary is the building block of spoken language. It allows individuals to participate in conversations, express opinions, ask questions, and engage in everyday verbal communication effectively.²⁷

Vocabulary, or lexicon, serves as the foundation of every language, enabling effective communication. The components of this vocabulary are categorized based on the parts of speech. Through an understanding of these types of words, we can comprehend how each word functions within a sentence and how they interact with one another.

²⁶Brooks, Gavin, et al. "Exploring the importance of vocabulary for English as an additional language learners' reading comprehension." *Studies in Second Language Learning and Teaching* 11 (2021): 351-376.

²⁷ Salawazo Ivan Susanto, et al. "Analysis Of Students' Vocabulary in Learning English." *Linguistic, English Education and Art (LEEAA) Journal* 3 (2020): 469-475.

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- a) Verbs: Verbs are the engines of sentences. They convey actions or states and provide dynamism to the sentence. Examples include "run," "jump," "eat," "sleep," and "study."
- b) Nouns: Nouns are objects that can be seen, felt, or thought of. They represent everything that can be identified concretely or abstractly. Examples include "book," "cat," "table," "computer," and "happiness."
- c) Adjectives: Adjectives provide descriptions or details about nouns or pronouns. They add detail and color to the sentence. Examples include "big," "red," "happy," "tall," and "beautiful."
- d) Adverbs: Adverbs provide additional information about verbs, adjectives, or other adverbs. They often answer questions such as how, when, where, or to what extent. Examples include "quickly," "slowly," "happily," "loudly," and "carefully."
- e) Pronouns: Pronouns replace or refer back to nouns or previously mentioned people in the sentence. Examples include "I," "you," "he," "she," "it," "we," and "they."
- f) Prepositions: Prepositions connect words in a sentence and indicate the relationship between them in space and time. Examples include "in," "on," "at," "under," "between," and "through."

- g) Conjunctions: Conjunctions link clauses or phrases within a sentence. They can express the relationship between two ideas or expand the sentence by adding additional information. Examples include "and," "but," "or," "so," "because," and "although."
- h) Interjections: Interjections express sudden and unexpected feelings or emotions. They are used to convey surprise, pain, joy, or disagreement. Examples include "Wow!," "Ouch!," "Oh!," "Hey!," .

Through an understanding of the components of this vocabulary, we can construct sentences that are clear, meaningful, and varied in the language we are learning.

In summary, vocabulary is at the core of language use in English. It impacts all aspects of communication, comprehension, and expression, making it an essential component of language proficiency.

B. Previous Research Finding

Research conducted by Augustinus Lumettu, Jemmy R. Pangemanan, Silvana A.R Wewengkang, Mita Erdiaty Takaendengan, & Harty Koagouw (2022) entitled: *"Integrated English Learning through Word Chain Games in the Department of Tourism Manado State Polytechnic"*. In this research was found that the word chain game students are motivated and more focused in doing assignments and various exams

relate to the material that has been taught. The difference in this research and my research is this research focuses on all skill in English while my research more focused on vocabulary mastery. The equality between this research and my research is both focused on word chain game.²⁸

Research conducted by Jenidar Permata Sari Gunto, Yaredi Waruwu, Kristof Martin E., Telaumbanua, Hidayati Daeli (2023) entitled: *“Increasing The Students’ Vocabulaty Mastery Through Word Chain Game (WCG) at The Eighth Grade of UTPD SMP Negeri 4 Gunungsitoli in 2022/2023”*. In this reseach was found that the use of word chain games can improve student’s vocabulary mastery.²⁹ The difference between my research and this research is my research use two games while this research just use one type of game. The equality between this research and my research is both use quantitative research methods.

Reseach conducted by Rini Listyowati, Sitti Anis Jumatus Solehah, Jaftiyatur Rohaniyah (2023) entitled *“The Utilization of Word Chain Games to Improve Senior High School Students’ English Vocabulary Mastery”*. In this research was found that the word chain game can improve student’s vocabulary mastery.³⁰ The difference between my research and this research is is my research use two games while this research just use one type of

²⁸ Lumettu, Augustinus, et al. Integrated English Learning through Word Chain Games in the Department of Tourism Manado State Polytechnic. *International Journal of Arts Humanities and Social Science Studies* Vol 7 (12). (2022): 18-30

²⁹ Gulo, Jenidar Permata Sari. Increasing The Students’ Vocabulaty Mastery Through Word Chain Game (WCG) at The Eighth Grade of UTPD SMP Negeri 4 Gunungsitoli in 2022/2023. *Jurnal Review Pendidikan dan Pengajaran*, Vol 6(2). (2023): 629-634

³⁰ Listyowati, Rini, et al. The Utilization of Word Chain Games to Improve Senior High School Students’ English Vocabulary Mastery. *Journal of English Teaching and Research*, Vol.8(2). (2023): 156-162

game. The equality between this research and my research is both use quantitative research methods.

Research conducted by Muh. Khaedar & Syamsul Alam (2023) entitled *“The Impact of Implementation of Crossword Puzzle Model for Students’ Learning Outcomes in Indonesian Subject”*. In this research was found that crossword puzzle learning has an effect on Indonesian Language learning outcomes in third grade students of SD Inpres Sero Gowa. The difference between my research and this research is this research use Indonesian subject while my research uses English subject. The equality between this research and my research is both use Crossword Puzzle game for learning.³¹

Research conducted by Sentya L. Montoali, Maikel B.G. Sanger, & Sarah Kamagi (2023) entitled *“Increasing Students’ Vocabulary on Irregular Verbs by Using Crossword Puzzle”*. In this research was found that teaching vocabulary using crossword puzzle differs significantly from other methods. The difference between this research and my research is this research just use crossword puzzle in learning methods while my research use crossword puzzle and word chain. The equality between this research and my research is both use quantitative research methods.³²

Table 2.1 Previous Research Finding

³¹ Khaedar, Muh & Alam, Syamsul. The Impact of Implementation of Crossword Puzzle Model for Students’ Learning Outcomes in Indonesian Subject. JED: Journal of Etika Demokrasi, Vol. 8(1): 2023: 74-85

³² Montoali, Sentya L, et al. Increasing Students’ Vocabulary on Irregular Verbs by Using Crossword Puzzle. JoTELL Journal of Teaching English, Linguistics, and Literature published by English Education Study Program, Faculty of Language and Arts, Universitas Negeri Manado, Vol.2 (6). (2023): 784-793

Author and Year	Research Title	Difference	Equality	Research Result
Augustinus Lumettu, Jemmy R. Pangemanan, Silvana A.R Wewengkang, Mita Erdiaty Takaendengan, & Harty Koagouw (2022)	Integrated English Learning through Word Chain Games in the Department of Tourism Manado State Polytechnic	The difference in this research and my research is this research focuses on all skill in English while my research more focused on vocabulary mastery	The equality between this research and my research is both focused on word chain game	In this research was found that the word chain game students are motivated and more focused in doing assignments and various exams relate to the material that has been taught.
Jenidar Permata Sari Gunto, Yaredi Waruwu, Kristof Martin E., Telaumbanua,	Increasing The Students' Vocabulaty Mastery Through Word	The difference between my research	The equality between this research	In this reseach was found that the use of word chain

<p>Hidayati Daeli (2023)</p>	<p>Chain Game (WCG) at The Eighth Grade of UTPD SMP Negeri 4 Gunungsitoli in 2022/2023</p>	<p>and this research is my research use two games while this research just use one type of game.</p>	<p>and my research is both use quantitative research methods.</p>	<p>games can improve student's vocabulary mastery.</p>
<p>Rini Listyowati, Sitti Anis Jumatus Solehah, Jaftiyatur Rohaniyah (2023)</p>	<p>The Utilization of Word Chain Games to Improve Senior High School Students' English Vocabulary Mastery</p>	<p>The difference between my research and this research is my research use two games while this research</p>	<p>The equality between this research and my research is both use quantitative research methods.</p>	<p>In this research was found that the word chain game can improve student's vocabulary mastery.</p>

		just use one type of game.		
Muh. Khaedar & Syamsul Alam (2023)	The Impact of Implementation of Crossword Puzzle Model for Students' Learning Outcomes in Indonesian Subject	The difference between my research and this research is this research use Indonesian subject while my research uses English subject.	The equality between this research and my research is both use Crossword Puzzle game for learning.	In this research was found that crossword puzzle learning has an effect on Indonesian Language learning outcomes in third grade students of SD Inpres Sero Gowa.
Sentya L. Montoali, Maikel B.G. Sanger, &	Increasing Students' Vocabulary on Irregular Verbs	The difference between this	The equality between this	In this research was found that teaching

Sarah (2023)	Kamagi	by Using Crossword Puzzle	research and my research is this research just use crossword puzzle in learning methods while my research use crossword puzzle and word chain.	research and my research is both use quantitative research methods.	vocabulary using crossword puzzle differs significantly from other methods.
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C. Theoretical Framework

Based on the problems mentioned, an overview of the thinking framework can be created as follows:

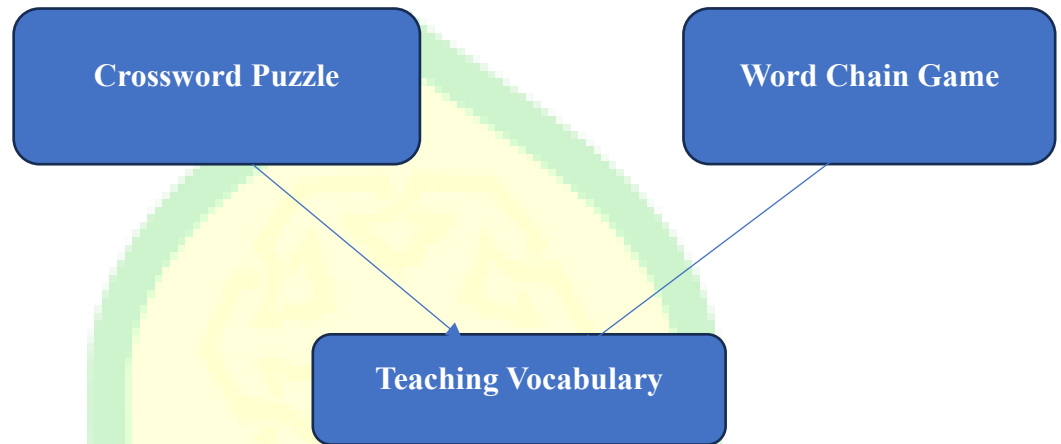


Figure 2.3 Theoretical Framework

D. Hypotesis

Based on the problem that have been described, a hypothesis can be prepared as follows:

H₀= There is no significant difference in vocabulary mastery between students at Mts Al-Islam Joresan, Ponorogo who are taught using crossword puzzle and word chain games compared to those who are not taught using these media.

H₁= There is significant difference in vocabulary mastery between students at Mts Al-Islam Joresan, Ponorogo who are taught using crossword puzzle and word chain games compared to those who are not taught using these media

CHAPTER III

RESEARCH METHOD

A. Research Design

This research employs a quantitative approach because the researcher aims to numerically measure the effectiveness of Crossword Puzzle and Word Chain Game in teaching vocabulary. This will involve the collection of data in numeric forms, such as test score or evaluation results.

This study employs an Experimental research design aimed at experimentally evaluating the effectiveness of Crossword Puzzle and Word Chain Game in teaching vocabulary. It involves dividing student groups into control and experimental groups, as well measuring vocabulary outcomes before and after the experiment.

In this study, the researcher used quasi experimental method with one experimental group and control group. The research design is:

Table 3.1 Research Design

Group	Pre-test	Treatment	Post-test
Experimental	O ₁	X	O ₂
Control	O ₃	-	O ₄

Notes:

X: Treatment using Crossword Puzzle and Word Chain Game

O₁: Pre-test of experimental class

O₂: Post-test of experimental class

O₃: Pre-test of control class

O₄: Post-test of control class

B. Research Setting

This research was conducted at one of the junior high school in Ponorogo, specifically at MTs Al-Islam Joresan, Ponorogo. The Researcher selected this research location because MTs Al-Islam Joresan, Ponorogo offers a suitable and relevant setting for what the researcher intends to write about. The research was conducted at MTS AL-Islam Joresan, Ponorogo, located at Jalan Madura, Joresan 3, Joresan, Mlarak, Ponorogo Regency, utilizing samples from classes VIIE and VIIF. The research was carried out from April 29, 2024.

C. Research Population and Sample

Population refers total individuals who possess specific characteristics³³. In this research, the population used consist of Seventh-grade students consisting of 3 classes of MTs Al-Islam Joresan, Ponorogo. Sample is a reprehensive part of a population of research.³⁴

1. Population

As per Burns and Grove, a population refers to the entirety of elements meeting the inclusion criteria for a study. It represents a broad domain comprising objects or subjects possessing specific quantities and attributes delineated by the researcher for examination and subsequent

³³ Thacker, Leroy R. What is the Big Deal About Populations in Research? Progress in Transpation 30 (2020)

³⁴ Shukla, Satishprakash. Concept of Population and Sample. 2020

inference drawing.³⁵ The population of this research was 550 students of 7th grade MTs Al-Islam Joresan in academic year 2023/2024.

2. Sample

Sample can be defined as a part of the population in the research. In this research the sample were selected using a random sampling technique. In this research, VII F was chosen as the experiment class and VII E as the control class.

Table 3.2 Research Sample

No	Class	Amount
1	VII F	29
2	VII E	28
Total		57 students

D. Operational Variable Definition in Research

In the thesis title, variable X1 (Independent Variable) can be defined as the utilization of Crossword Puzzle and variable X2 is Word Chain Game, whereas variable Y (Dependent Variable) represents teaching vocabulary.

E. Techniques and Data Collection Instruments

The data collection techniques and instruments for the quantitative research titled “The Effectiveness Of Crossword Puzzle And Word Chain

³⁵ S.K Grove and N. Burns. Understanding Nursing Research 3 Rd Ed (Philadelphia: W.B. Saunders Company,2003)

Game In Teaching Vocabulary At Mts Al-Islam Joresan, Ponorogo” would typically involve the following:

Data Collection Techniques:

- 1) Test and Assesments: Standarized tests or custom-designed assessments can be administered to measure Vocabulary skill
- 2) Documentations: Researchers can observe students while the engage with active learning strategies using crossword puzzle and word chain game and it will be documented.

The researcher used a quasi-experimental research design to collect the data. The researcher gives treatment to the experimental group by Crossword Puzzle and Word Chain Game. From the control group, the researcher uses the conventional method to teach them and take their score on the paper-based test.

The primary goal of data collection is to collect best data that can be analyzed and utilized to support or provide evidence for decision. The data utilized in this study are derived from a vocabulary assessment form employed to measure students' vocabulary proficiency. The achievement tests in this research encompass both pretest and posttest assessments.

There are the steps to collecting the data:

1. Giving pre-test to experimental group and control group by giving a multiple choice test to the student.
2. Teaching the control group by conventional method.

3. Teaching the experimental group by applying Crossword Puzzle and Word Chain Game.
4. Giving post-test to experimental group and control group.
5. Scoring the student's answer of two group.

Data Collection Instruments:

Vocabulary Test: These test can be designed to evaluate student's vocabulary skill. They should be reliable and valid, ensuring that they accurately measure the skill in question.

The researcher gave a multiple choices test that consist 25 questions for the students to find out the student's capability in reading comprehension. The following is outline of pretest and posttest questions:

Table 3.3 Pre-Test and Post-Test Outline

Title	Variable	Theory	Indicators	Sample	Pre test	Post test
The Effectiveness of Crossword Puzzle and	Vocabulary	Eugene A. Nida (1964), a scholar in translation and linguistics, introduced	1. To be able to identify verb in a sentence.	What is the verb (kata kerja) in following sentences: "Additionally, a lot of them borrow books to read at home."?	1,11	1,11

Word Chain Game in Teaching Vocabulary at MTs Al-Islam Joresa n, Ponorogo	the concept of "dynamic equivalence," highlighting the necessity for translation as to consider cultural nuances and grasp the essence of words. In the realm of Indonesian-English and English-	2. To be able to complete the sentence using the provided verb words.	Which the following words can complete the sentence "At the front of the room, there is a whiteboard for with markers." ?	21, 29	21, 29
		3. To be able to identify verbs according to the picture.	According to the picture above, what is the student doing?	8, 18	8, 18
		1. To be able to identify noun in a sentence	Identify the Noun (kata benda) in the sentence "There is a blackboard near of her"!	2, 12	2, 12

		Indonesian translation	2. To be able to complete the sentence using the provided noun words.	Which noun (kata benda) fits best in the sentence “Each has a place to put books and stationery.” ?	22, 28	22, 28
		, Nida stressed the significance of comprehending word meanings within their respective languages and the context in which they are employed.	3. To be able to identify noun according to the picture.	What is the name of the object in the picture above?	9, 19 10, 20	9, 19 10,20
			1. To be able to identify a verb in a sentence.	Which word in the sentence “Additionally, a lot of them borrow books to read at home.” is an	3, 13	3, 13

			adverb (kata keterangan)?		
		2. To be able to complete the sentence using the provided adverb words.	What adverb (kata keterangan) should be used to complete the sentence "....., <i>there are also creative activities like drawing or doing projects together.</i> "?	23	23
		1. To be able to identify adjective in a sentence.	Which word functions as an adjective (kata sifat) in the sentence " <i>The library is so small</i> "?	4, 14	4, 14
		2. To be able to complete the	What adjective completes the sentence " <i>From the classroom</i>	27, 30	27, 30

			<p>sentence using the provided adjective words.</p> <p><i>window, there is a view. ”?</i></p>		
			<p>1. To be able to identification preposition in a sentence.</p> <p>Identify the preposition (kata depan) in the sentence “<i>Ms Rita's desk is on the corner.</i>”!</p>	6, 15	6, 15
			<p>2. To be able to complete the sentence using the provided preposition words.</p> <p>Which preposition should be placed in the blank to complete the sentence “... <i>this classroom, there are desks and chairs.</i>”?</p>	24	24

			1. To be able to identify conjunction in a sentence.	Identify the conjunction (kata hubung) in the sentence “ <i>It is between my classroom and teacher’s room.</i> ” !	5, 16	5, 16
			2. To be able to complete the sentence using the provided conjunction words.	What conjunction completes the sentence “ <i>Students and teachers gather here to learn new lessons</i> ”?	25	25
			1. To be able to identify pronoun in a sentence	Identify the pronoun (kata ganti) in the sentence “ <i>It is between my</i>	7	7

				<i>classroom and teacher's room.</i> "!		
			2. To be able to complete the sentence using the provided pronoun words.	What pronoun (kata ganti) completes the sentence " <i>On the side of the room, there are windows. There are four of</i> " ?	26	26
			3. To be able to identify this pronoun as a substitute for which word in a sentence.	" <i>The field is large. It is located in the middle courtyard of the school.</i> " What does the pronoun (kata benda) " it " refer to in the sentence?	17	17

F. Validity and Reliability

1. Validity Test

“The extent to which a measure adequately represents the underlying construct that it is supposed to measure” (Drost, 2011) is called validity.³⁶ In instrument validity testing, a validity test will be conducted using the Pearson Product-Moment Correlation (PPMC) formula with the following equation:

$$r_{xy} = \frac{n \sum X_i Y_i - (\sum X_i)(\sum Y_i)}{\sqrt{(n \sum X_i^2 - (\sum X_i)^2)(n \sum Y_i^2 - (\sum Y_i)^2)}}$$

Description:

r_{xy} = Correlation Coefficient

n = Sample Size

$\sum xy$ = Sum of the Product of Variables x and y

$\sum x$ = Sum of Variable x

$\sum y$ = Sum of Variable y

$\sum X^2$ = Sum of Squares of Variable x

$\sum Y^2$ = Sum of Squares of Variable y

³⁶ Kubai, Edwin. "Reliability and Validity Research Instrument." 2019: 1-9.

To measure the validity of pre test and post test item, the researcher used SPSS software and the result showed as follow:

Table 3.4 Validity Testing (Pretest)

No. Item	Rxy	Rtable	Interpretation
1	0,891	0,381	Valid
2	0,886	0,381	Valid
3	0,835	0,381	Valid
4	0,835	0,381	Valid
5	0,706	0,381	Valid
6	0,690	0,381	Valid
7	0,681	0,381	Valid
8	0,854	0,381	Valid
9	0,688	0,381	Valid
10	0,745	0,381	Valid
11	0,755	0,381	Valid
12	0,745	0,381	Valid
13	0,678	0,381	Valid
14	0,745	0,381	Valid
15	0,723	0,381	Valid
16	0,696	0,381	Valid
17	0,594	0,381	Valid
18	0,663	0,381	Valid

19	0,663	0,381	Valid
20	0,670	0,381	Valid
21	0,702	0,381	Valid
22	0,824	0,381	Valid
23	0,806	0,381	Valid
24	0,594	0,381	Valid
25	0,755	0,381	Valid
26	0,730	0,381	Valid
27	0,733	0,381	Valid
28	0,270	0,381	Invalid
29	0,315	0,381	Invalid
30	0,264	0,381	Invalid

Based on the validity test above, it showed that 27 items were declared as valid items out of 30 items. Subsequently, the researcher decided to used 25 items as questions in the pre-test instrument. Besides that, here the validity test results of post-test instrument:

Table 3.5 Validity Testing (Posttest)

No. Item	r_{xy}	r_{table}	Interpretation
1	0,379	0,381	Invalid
2	0,461	0,381	Valid
3	0,568	0,381	Valid
4	0,504	0,381	Valid

5	0,567	0,381	Valid
6	0,546	0,381	Valid
7	0,500	0,381	Valid
8	0,434	0,381	Valid
9	0,550	0,381	Valid
10	0,434	0,381	Valid
11	0,528	0,381	Valid
12	0,434	0,381	Valid
13	0,256	0,381	Invalid
14	0,459	0,381	Valid
15	0,395	0,381	Valid
16	0,335	0,381	Invalid
17	0,400	0,381	Valid
18	0,425	0,381	Valid
19	0,632	0,381	Valid
20	0,461	0,381	Valid
21	0,434	0,381	Valid
22	0,552	0,381	Valid
23	0,385	0,381	Valid
24	0,490	0,381	Valid
25	0,461	0,381	Valid
26	0,412	0,381	Valid
27	0,672	0,381	Valid

28	0,441	0,381	Valid
29	0,483	0,381	Valid
30	0,410	0,381	Valid

Based on the validity test above, it showed that 27 items were declared as valid items out of 30 items. Subsequently, the researcher decided to used 25 items as questions in the post-test instrument.

2. Reliability

According to Drost (2011), reliability is “the extent to which measurements are repeatable when different people perform the measurement on different occasion, under different condition, supposedly with alternative instruments which measure the construct or skill”.

To test reliability, the researcher will use the Cronbach's Alpha formula:

$$r_{11} = \frac{k}{k - 1} \times \left\{ 1 - \frac{\sum S_i}{S_t} \right\}$$

Description:

r_{11} = Reliability Sought

n = Number of Items Queried

$\sum S_i$ = Variance of Scores for Each Item

S_t = Total Variance

To measure the validity of pre test and post test item, the researcher used SPSS software and the result showed as follow:

Table 3.6 Reliability of Pretest

Case Processing Summary

		N	%
Cases	Valid	27	100.0
	Excluded ^a	0	.0
	Total	27	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.958	30

Table 3.7 Reliability of Posttest

Case Processing Summary

		N	%
Cases	Valid	27	100.0
	Excluded ^a	0	.0
	Total	27	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.872	30

The basis for determining the reliability of a research instrument, as described in the book "SPSS for Research" by V. Wiratna Sujarweni (2014), is as follows: If the Cronbach's Alpha value is greater than 0.60, then the research instrument is considered reliable or consistent. Conversely, if the Cronbach's Alpha value is less than 0.60, then the research instrument is considered unreliable or inconsistent. Based the table above, test instrument of pretest is reliable or consistent because the Cronsbach's Alpha value is $0,958 > 0,60$. Similarly, the reliability test in the post-test, the instrument of posttest also reliable or consistent because the Cronsbach's Alpha value is $0,872 > 0,60$.

G. Data Analysis Technique

Data analysis techniques are steps used to find answers to the formulated research questions. In this study, the researcher will employ statistical methods to analyze the data. For scoring students, the researcher utilizes the following formula:

$$\text{Student Score: } N \times 4$$

N= Items of Question

1. Normality Test

The normality test is a procedure used to ascertain whether data originates from a population with a normal distribution or exhibits patterns within a normal spread. The researcher used SPSS for windows for normality test.

2. Homogeneity Test

The homogeneity test is a statistical procedure aimed at demonstrating that two or more groups of sample data originate from populations with similar variances. This step aids in demonstrating the consistency or similarity of variability among these groups. The researcher use the program SPSS Statistics for Windows to calculate the homogeneity test.

3. Testing Hypotesis

The data analysis technique used in this study involves the use of inferential statistics with the category Hypotesis Testing, that is creating a null hypothesis and an alternative hypothesis, then performing a statistical test of significance are required. Then this research use Uji Independent Sample T. The criteria for testing the hypothesis are bellow:

"If the Sig. (2-tailed) is < 0.05 , then H_0 is rejected and H_a is accepted.

If the Sig. (2-tailed) is > 0.05 , then H_0 is accepted and H_a is rejected."



CHAPTER IV

FINDINGS AND DISCUSSION

A. Overview of Research Background

The study focuses on investigating the impact of active learning strategies, specifically the utilization of crossword puzzle and word chain game, on enhancing vocabulary mastery among students at MTS Al-Islam Joresan. Located in the vibrant setting of Joresan, Ponorogo, MTS Al-Islam Joresan serves as an educational institution committed to nurturing students' academic growth and holistic development. Situated approximately 15 km from the capital of Ponorogo Regency, MTS Al-Islam Joresan provides a conducive learning environment within the village of Joresan, Mlarak District. Originally established as an Islamic Junior High School, its commitment to educational excellence has evolved over the years, now catering to students in various grades, including seventh grade (VII).

The research aims to delve into the effectiveness of employing innovative teaching media, such as crossword puzzle and word chain game, as interactive media to facilitate vocabulary acquisition among seventh-grade students. By conducting experiments within the classroom setting, the study endeavors to contribute valuable insights into optimizing teaching approaches and enhancing students' language proficiency. Through this research endeavor, MTS Al-Islam Joresan seeks to not only advance pedagogical practices but also empower students in their language learning journey, equipping them with the necessary skills for academic success and beyond.

B. Research Findings Description

In this section, the researcher present the research findings in a descriptive way. In this segment, we will discuss the procedures during the research in the control class, Pre-Test and Post-Test scores in the control class, procedures during the research in the experimental class, Pre-Test and Post-Test scores in the experimental class.

1. The Control Class Research Descriptions

a. The Control Class Research Procedures

In the control class, the researcher used normal or conventional teaching methods to teach students as follows:

First Meeting:

Opening Activities

- 1) The researcher initiates with a salutation and prayer before commencing the instructional session.
- 2) The researcher verifies the attendance of the students.
- 3) The researcher poses elicitation questions based on the material on procedural text:

"What are your preferred locations within the school premises?"

"Could you describe what can be found there?"

- 4) The researcher delivers an explanation regarding the benefits and objectives of learning descriptive texts.
- 5) The researcher elucidates the assessments that the students will undergo.

Core activities

The researcher administered a pre-test to the participants on the subject matter that would be taught. The questions are 25 multiple choices.

Closing activities

Learning activities closed with prayers and greetings.

Second Meeting:

Opening activities

- 1) The researcher greets and offers a prayer before the lesson commences.
- 2) The researcher checks the attendance of the students.

Core activities

- 1) The researcher delivers instruction to learners on descriptive text, its structure, and the utilization of vocabulary within descriptive texts.
- 2) The researcher and the students collaboratively analyze a descriptive text to comprehend the text structure that has been elucidated.
- 3) The students were given Student Worksheets (LKPD) and instructed to create a project completion schedule (for creating descriptive texts) according to the provided format, adhering to the agreed-upon time limits.

Closing activities

- 1) The researcher provides confirmation regarding the schedule for group assignment submission.
- 2) The students and students collectively conclude the learning material.
- 3) Summarizing the agenda for the next meeting.

Third Meeting:

Opening activities

- 1) The researcher greets and offers a prayer before the commencement of the lesson.
- 2) The researcher checks the attendance of the students.
- 3) The researcher reminds the students regarding the submission of the project assignments given during the first meeting.

Core Activities

- 1) The students submit group assignments on creating Descriptive Text to the researcher.
- 2) All groups present the results of the Descriptive Text they have worked on in turn.
- 3) The researcher provides feedback on their group work outcomes.
- 4) Implementation of a Post-test related to the material taught.

Closing activities

The teacher concludes the learning activities by providing feedback and motivation regarding the conducted activities to maintain enthusiasm for learning, culminating with a closing prayer or salutation.

b. The Students' Score in Control Class

1. The Result of Student's Pre-Test Score in Control Class

Table 4.1 Result of Student's Pretest Score in Control Class

NO	NAMA	SCORE
1	S1	68
2	S2	56
3	S3	60
4	S4	64
5	S5	64
6	S6	72
7	S7	72
8	S8	60
9	S9	72
10	S10	64
11	S11	60
12	S12	56
13	S13	56
14	S14	64

15	S15	68
16	S16	64
17	S17	60
18	S18	56
19	S19	60
20	S20	64
21	S21	56
22	S22	64
23	S23	68
24	S24	60
25	S25	64
26	S26	52
27	S27	56
28	S28	60
Total		1740

The table above shows that the highest pretest score in control class is 72 and the lowest pretest score in control class is 52. The total pretest score is 1740.



Table 4.2 Frequency Distribution of Pre-Test in Control Class

PretestControl					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	52	1	3.6	3.6	3.6
	56	6	21.4	21.4	25.0
	60	7	25.0	25.0	50.0
	64	8	28.6	28.6	78.6
	68	3	10.7	10.7	89.3
	72	3	10.7	10.7	100.0
	Total	28	100.0	100.0	

The table can shown that there are various score on the student's vocabulary mastery. There are 3.6 % from 1 student gained score 52, 21.4% from 6 student gained score 56, 25.0% from 7 students gained score 60, 28,6 % from 8 students gained score 64, 28.6 % from 8 students gained score 64, 10.7% from 3 students gained score 68, and 10.7% from 3 students gained score 72. Based on the table 4.2 the histogram showed:

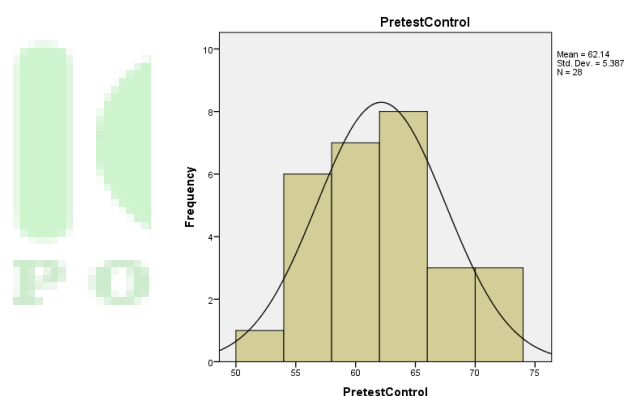


Figure 4.1 Histogram of Pre-Test in Control

From the information displayed in the histogram, it is evident that the mean of the data distribution is 62.14, with a standard deviation of approximately 5.387. The mean reflects the central value of the distribution, which is 62.14, while the standard deviation illustrates how far individual values are spread from the mean. In conclusion, the data distribution in the histogram indicates a relatively high mean and a relatively stable distribution.

2. The result of Student's Post-Test Score in Control Class

Table 4.3 Result of Student's Post-Test Score in Control Class

NO	NAMA	SCORE
1	S1	76
2	S2	68
3	S3	68
4	S4	72
5	S5	72
6	S6	84
7	S7	80
8	S8	68
9	S9	76
10	S10	72
11	S11	76
12	S12	60

13	S13	64
14	S14	72
15	S15	80
16	S16	76
17	S17	68
18	S18	64
19	S19	72
20	S20	80
21	S21	76
22	S22	72
23	S23	80
24	S24	68
25	S25	76
26	S26	64
27	S27	76
28	S28	72
Total		2032

The table above shows that the highest posttest score in control class is 84 and the lowest pretest score in control class is 60 . The total pretest score is 2032.

Table 4.4 Frequency Distribution of Post-test in Control Class

PosttestControl					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	60	1	3.6	3.6	3.6
	64	3	10.7	10.7	14.3
	68	5	17.9	17.9	32.1
	72	7	25.0	25.0	57.1
	76	7	25.0	25.0	82.1
	80	4	14.3	14.3	96.4
	84	1	3.6	3.6	100.0
	Total	28	100.0	100.0	

The table can be shown that there was various score on student's vocabulary. There were 3.6% from 1 student gained score 60, 10.7% from 3 students gained score 64, 17.9% from 5 students gained score 68, 25.0% from 7 students gained score 72, 25.0% from 7 students gained score 76, 14.3% from 4 students gained score 80, and 3.6% from 1 student gained score 84. Based on the table 4.4, the histogram showed bellow:



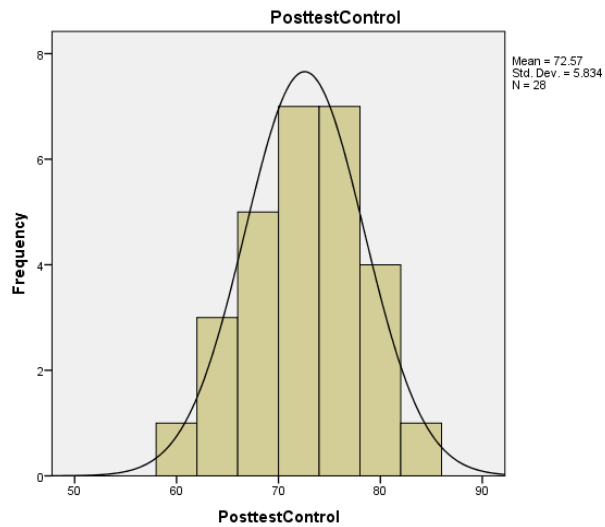


Figure 4.2 Histogram Of Post-Test Score In Control Class

From the information displayed in the histogram, it is evident that the mean of the data distribution is 72.57, with a standard deviation of approximately 5.834. The mean reflects the central value of the distribution, which is 72.57, while the standard deviation illustrates how far individual values are spread from the mean. In conclusion, the data distribution in the histogram indicates a relatively high mean and a relatively stable distribution.

2. The Experimental Class Data Description

a. The Experimental Class Research Procedures

In the control class, the researcher used crossword puzzle and word chain game to teach students as follows:

First Meeting:

Opening activities

- 1) The researcher greets and offers a prayer before the commencement of the learning session.
- 2) The researcher checks the attendance of the students.
- 3) The researcher provides prompting questions based on the material of descriptive text:

What are your favorite spots in your school?

What can be found there?

- 4) The researcher delivers information about the benefits and objectives of learning descriptive text.
- 5) The researcher explains the assessments that the students will undergo.

Core Activities

- 1) The researcher administers a pre-test to the students on the subject matter to be taught.
- 2) The researcher delivers instruction to the students on descriptive text, its structure, and the use of vocabulary within descriptive text.
- 3) Students and the researcher collectively analyze a descriptive text, understanding the text's structure as previously explained.
- 4) Students are provided with a Student Worksheet (LKPD) and instructed to create a project completion schedule (descriptive text composition) according to the provided format, adhering to the agreed-upon deadline.

- 5) The researcher provides confirmation regarding the group assignment submission schedule.

Closing activity

- 1) The researcher and students collectively conclude the learning material.
- 2) Summarizing the agenda for the next meeting.

Second Meeting

Opening activity

- 1) The researcher initiates the session with greetings and a prayer before the commencement of the instructional period.
- 2) The researcher conducts attendance verification of the students.
- 3) The researcher provides a reminder regarding the submission of the project assignments assigned during the initial meeting.

Core activity

- 1) Students submit group assignments on creating Descriptive Text to the teacher.
- 2) All groups present the results of the Descriptive Text they have worked on in turns.
- 3) The researcher provides feedback on their group work results.
- 4) Crossword Puzzle Activity

Students work in small groups.

Each group is given a Crossword Puzzle containing vocabulary and terms related to descriptive texts.

Students collaborate to fill in the Crossword Puzzle according to their knowledge of descriptive texts.

5) Discussion

After the game is completed, the teacher and participants engage in discussions about the words used in the Crossword Puzzle.

Closing activity

- 1) The researcher and students collectively summarize the learning material.
- 2) Summarizing the agenda for the next meeting.

Third Meeting

Opening activity

- 1) The researcher greets and offers a prayer before the lesson begins.
- 2) The researcher checks the attendance of the students.
- 3) The researcher reminds about the previous teaching material.

Core activity

1) Word Chain Game Activity

Students are divided into small groups.

The researcher elucidates the procedures of the Word Chain Game to the students.

Students take turns adding one word related to the descriptive text to form a word chain.

The game continues until time expires or until one group is unable to add any more words.

2) Discussion

Following the conclusion of the game, the instructor and students engage in a discussion regarding the words utilized in the Word Chain Game.

3) Implementation of the Post-test related to the material taught.

Closing activity

The researcher concludes the learning activities by providing feedback and motivation regarding the completed tasks to maintain enthusiasm for learning, and ends with a closing prayer/salutation.

b. The Students' Scores in Experimental Class

1. The Result of Student's Pre-Test Score in Experimental Class

Table 4.5 Result of Student's Pre-Test Score in Experimental Class

NO.	NAME	SCORE
1	S1	48
2	S2	40
3	S3	56
4	S4	20
5	S5	64
6	S6	48
7	S7	32
8	S8	40

9	S9	68
10	S10	44
11	S11	52
12	S12	56
13	S13	44
14	S14	48
15	S15	52
16	S16	60
17	S17	60
18	S18	56
19	S19	60
20	S20	48
21	S21	64
22	S22	48
23	S23	52
24	S24	60
25	S25	48
26	S26	56
27	S27	64
28	S28	72
29	S29	48
	TOTAL	1508

The table above shows that the highest pretest score in experimental class class is 72 and the lowest pretest score in control class is 20 . The total pretest score is 1508.

Table 4.6 Frequency Distribution of Pre-Test in Experimental Class

		PretestEksperimen			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20	1	3.4	3.4	3.4
	32	1	3.4	3.4	6.9
	40	2	6.9	6.9	13.8
	44	2	6.9	6.9	20.7
	48	7	24.1	24.1	44.8
	52	3	10.3	10.3	55.2
	56	4	13.8	13.8	69.0
	60	4	13.8	13.8	82.8
	64	3	10.3	10.3	93.1
	68	1	3.4	3.4	96.6
	72	1	3.4	3.4	100.0
	Total	29	100.0	100.0	

The table can be shown that there was various score on the student's vocabulary. There were 3.4% from 1 student gained score 20, 3.4% from 1 student gained score 32, 6.9% from 2 students gained score 40, 6.9% from 2 students gained score 44, 24.1% feom 7 students gained score 48, 10.3% from 3 students gained score 52, 13.8% from 4 students gained score 56, 13.8% from 4 students gained score 60, 10.3% from 3 students gained score 64, 3.4% from 1 student gained score 68,

and 3.4% from 1 student gained score 72. Based on the table 4.6, the histogram showed bellow.

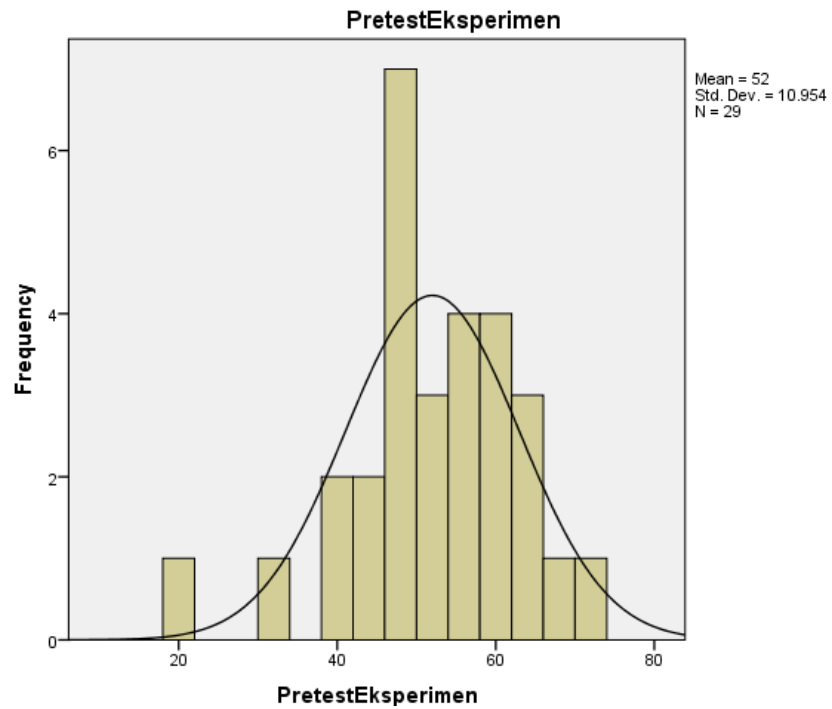


Figure 4.3 Histogram of Pre-Test Score in Experimental Class

From the information displayed in the histogram, it is evident that the mean of the data distribution is 52, with a standard deviation of approximately 10.954. The mean reflects the central value of the distribution, which is 52, while the standard deviation illustrates how far individual values are spread from the mean. In conclusion, the data distribution in the histogram indicates a relatively high mean and a relatively stable distribution.

2. The Result of Student's Post-Test Score in Experimental Class

Table 4.7 Result of Post-Test in Experimental Class

NO.	NAME	SCORE
1	S1	80
2	S2	80
3	S3	84
4	S4	84
5	S5	92
6	S6	92
7	S7	96
8	S8	68
9	S9	84
10	S10	88
11	S11	80
12	S12	88
13	S13	84
14	S14	72
15	S15	80
16	S16	76
17	S17	88
18	S18	88
19	S19	80
20	S20	84

21	S21	92
22	S22	84
23	S23	88
24	S24	92
25	S25	80
26	S26	76
27	S27	80
28	S28	96
29	S29	80
	TOTAL	2436

The table above shows that the highest posttest score in control class is 84 and the lowest pretest score in control class is 60. The total pretest score is 2436.

Table 4.8 Frequency Distribution of Post-test in Experimental Class

		PosttestEksperimen			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	68	1	3.4	3.4	3.4
	72	1	3.4	3.4	6.9
	76	2	6.9	6.9	13.8
	80	8	27.6	27.6	41.4
	84	6	20.7	20.7	62.1
	88	5	17.2	17.2	79.3
	92	4	13.8	13.8	93.1
	96	2	6.9	6.9	100.0
	Total	29	100.0	100.0	

The table can be shown that there was various score on the student's vocabulary. There were 3.4% from 1 student gained score 68, 3.4% from 1 student gained score 72, 6.9% from 2 students gained score 76, 27.6% from 8 students gained score 80, 20.7% from 6 students gained score 84, 17.2% from 5 students gained score 88, 13.8 from 4 students gained score 92, and 6.9% from 2 students gained score 96. Based on the table 4.8, the histogram showed bellow:

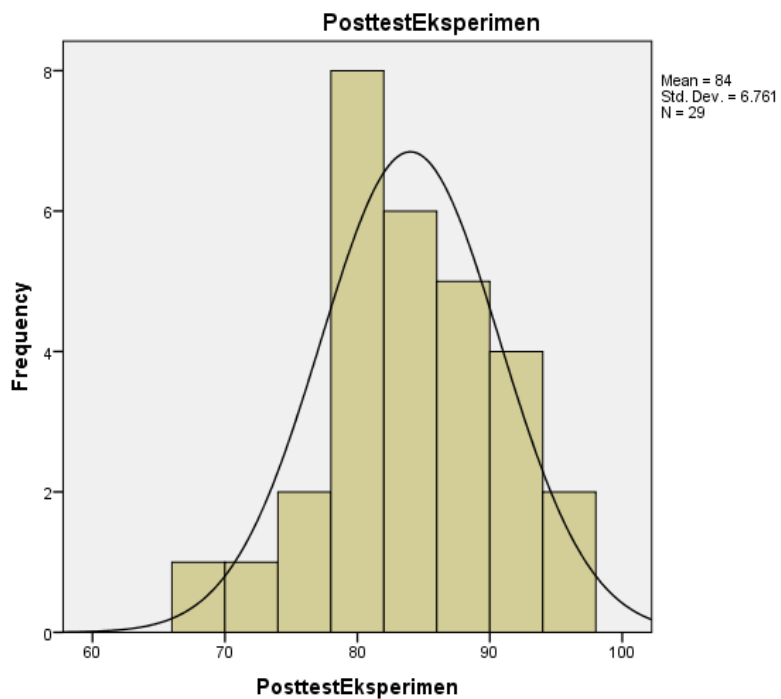


Figure 4.4 Histogram of Post-Test Score in Experimental Class

From the information displayed in the histogram, it is evident that the mean of the data distribution is 84, with a standard deviation of approximately 6.761. The mean reflects the

central value of the distribution, which is 84, while the standard deviation illustrates how far individual values are spread from the mean. In conclusion, the data distribution in the histogram indicates a relatively high mean and a relatively stable distribution.

C. Data Analysis and Hypotesis Testing

1. The Result of the Assumption Test

a. Normality Test

The normality test is a procedure used to ascertain whether data originates from a population with a normal distribution or exhibits patterns within a normal spread. The researcher used SPSS for windows for normality test. The calculation result is as follows:

Table 4.9 Result of Normality Test

		Tests of Normality					
		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Kelas	Statistic	Df	Sig.	Statistic	Df	Sig.
Hasil	PretestControl	.155	28	.085	.932	28	.069
	PosttestControl	.150	28	.106	.958	28	.310
	PretestEksperimen	.151	29	.091	.952	29	.207
	PosttestEksperimen	.139	29	.159	.958	29	.298

a. Lilliefors Significance Correction

In this study, the formula used to test the normality of data was the Kolmogorov-Smirnov because the sample was <30 for each class. If the value greater than 0.05 the data is theoretically normal. If it less than 0.05, the data deviates significantly from the normal distribution.

Based on the table above showed that the sig for Pretest Control class is 0.085. It can be concluded that the data of this research was normal because the value was higher than 0.05. Next, the Sig for Posttest Control class is 0.106. It can be concluded that the data of this research was normal because the value was higher than 0.05. Next, the Sig for Pre-test eksperimental class is 0.091. It can be concluded that the data of this research was normal because the value was higher than 0.05. And last, the Sig for Post-test eksperimental class is 0.159. It can be concluded that the data of this research was normal because the value was higher than 0.05.

b. Homogeneity Test

The homogeneity test is a statistical procedure aimed at demonstrating that two or more groups of sample data originate from populations with similar variances. This step aids in demonstrating the consistency or similarity of variability among these groups. The researcher use the program SPSS Statistics for Windows to calculate the homogeneity test. The calculation result is as follows:

Table 4.10 Result of Homogeneity Class

		Levene Statistic	df1	df2	Sig.
Hasil	Based on Mean	.341	1	55	.562
	Based on Median	.426	1	55	.517
	Based on Median and with adjusted df	.426	1	53.760	.517
	Based on trimmed mean	.380	1	55	.540

Based on the above homogeneity test table, shows the data is 0.540. We can conclude that the data variation is homogeneous because the value of statistic is the highest ($0.540 > 0.05$)

2. Hypotesis Test and Interpretation

Following the test for normality and homogeneity, researchers proceeded to test the hypothesis. Researcher used the T-test to analyze data with SPSS Statistic for Windows. The calculation result of the data is as follow:

Table 4.11 Mean Score of Experimental and Control Class

		Kelas	N	Mean	Std. Deviation	Std. Error Mean
HasilBelajar	ControlClass		28	72.57	5.834	1.102
	ExperimentClass		29	84.00	6.761	1.256

From the table above shown that the experiment class and the control class consist of total of 57 students. The mean score of the control class was 72.57, while the mean score of the experimental class was 84.00. It can be concluded that there is a difference in the mean

scores of students after the test between the control class and the experimental class. In addition, to prove whether the difference was significant or not, we need to interpret the following output of the “Independent Sample Test”.

Table 4.12 Calculation of T-Test Independent Sample Test

		Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
HasilBelajar	Equal variances assumed	.341	.562	-6.822	55	.000	-11.429	1.675	-14.786	-8.071
	Equal variances not assumed			-6.840	54.329	.000	-11.429	1.671	-14.778	-8.079

The table above shown that the value of Sig. (2-tailed) is 0.000 which is $0.000 < 0.05$. According to the decision-making criteria in the Independent sample T-Test formula (*"If the Sig. (2-tailed) is < 0.05 , then H_0 is rejected and H_a is accepted. If the Sig. (2-tailed) is > 0.05 , then H_0 is accepted and H_a is rejected."*), it can be confirmed that H_0 is rejected and H_a is accepted. This implies that there is significant difference in vocabulary mastery between students at Mts Al-Islam Joresan, Ponorogo who are taught using crossword puzzle and word chain game compared to those who are not taught using these media.

D. Discussion

In April 2024, researcher visited MTS Al-Islam Joresan to request permission to conduct a study spanning three sessions. The researchers conducted pretest and posttest activities in both the experimental and control classes. In the experimental class, the researcher taught children's vocabulary using crossword puzzle and the word chain game, while in the

control class, the researcher taught vocabulary without using these media or the researcher taught vocabulary just using conventional method.

By conducting these activities, the researcher aims to determine whether students who are taught using crossword puzzle and word chain game have better vocabulary mastery compared to those who are not taught using these media at MTs Al-Islam Joresan Ponorogo. The following are the hypotheses formulated by the researcher:

H₀= There is no significant difference in vocabulary mastery between students at Mts Al-Islam Joresan, Ponorogo who are taught using crossword puzzle and word chain games compared to those who are not taught using these media.

H₁= There is significant difference in vocabulary mastery between students at Mts Al-Islam Joresan, Ponorogo who are taught using crossword puzzle and word chain game compared to those who are not taught using these media.

From the calculation above, the result of this research that the value of Sig. (2-tailed) is 0.000 which is $0.000 < 0.05$. it can be confirmed that H₀ is rejected and H_a is accepted. This implies to the conclusion that there is a significant difference in vocabulary mastery between students at Mts Al-Islam Joresan, Ponorogo who are taught using crossword puzzle and word chain game compared to those who are not taught using these media. These findings suggest that crossword puzzle and word chain game are effective learning media for teaching vocabulary at MTs Al-Islam Joresan, Ponorogo.

CHAPTER V

CLOSING

A. Conclusion

The study investigated the effectiveness of using crossword puzzle and word chain game in teaching vocabulary at MTs Al-Islam Joresan, Ponorogo. The researcher conducted research at MTs Al-Islam, encompassing pre-tests and post-tests for both control and experimental classes, implementing crossword puzzle and word chain game in the experimental class. Subsequent analysis concluded that these media effective for teaching vocabulary. The study highlighted a notable disparity between students utilizing these interactive media and those not exposed to them, demonstrating the efficacy of crossword puzzle and word chain game in improving vocabulary acquisition.

The result from this research is the students who are taught by using crossword puzzle and word chain game get a better score of the students' post-test from the experimental class (84) is higher than the control class (72,57). The results of this research are also evident in the outcomes of the Independent Sample T-Test, the result of this research that the value of Sig. (2-tailed) is 0.000 which is $0.000 < 0.05$. it can be confirmed that H_0 is rejected and H_a is accepted. This study shows that teaching vocabulary using crossword puzzle and word chain game can increase student's vocabulary mastery.

B. Recommendations

After drawing conclusions from the research findings above, the researcher provides several recommendations for various stakeholders such as students and institutions. The researcher hopes that these recommendations will aid in developing media that can be employed in vocabulary learning, particularly using crossword puzzle and word chain games, to enhance students' vocabulary mastery.

1. For students

- a. Students are reminded to actively engage in the process of learning English vocabulary. This includes participating in classroom activities, reading regularly, and utilizing additional learning resources such as dictionaries and English learning apps.
- b. It is recommended for students to explore various learning media introduced by teachers, including the use of crossword puzzle and word chain game.
- c. Students are reminded that consistency and patience are crucial in developing English vocabulary skills. Engaging in regular practice and gradually expanding vocabulary will help enhance understanding and mastery of the English language.

2. For the teacher

- a. Teachers are encouraged to incorporate learning strategies into their vocabulary teaching methods. This includes using interactive activities such as crossword puzzle, word chain games, role-playing,

and group discussions to engage students actively in the learning process.

b. Teachers should establish effective communication with students during learning activities.

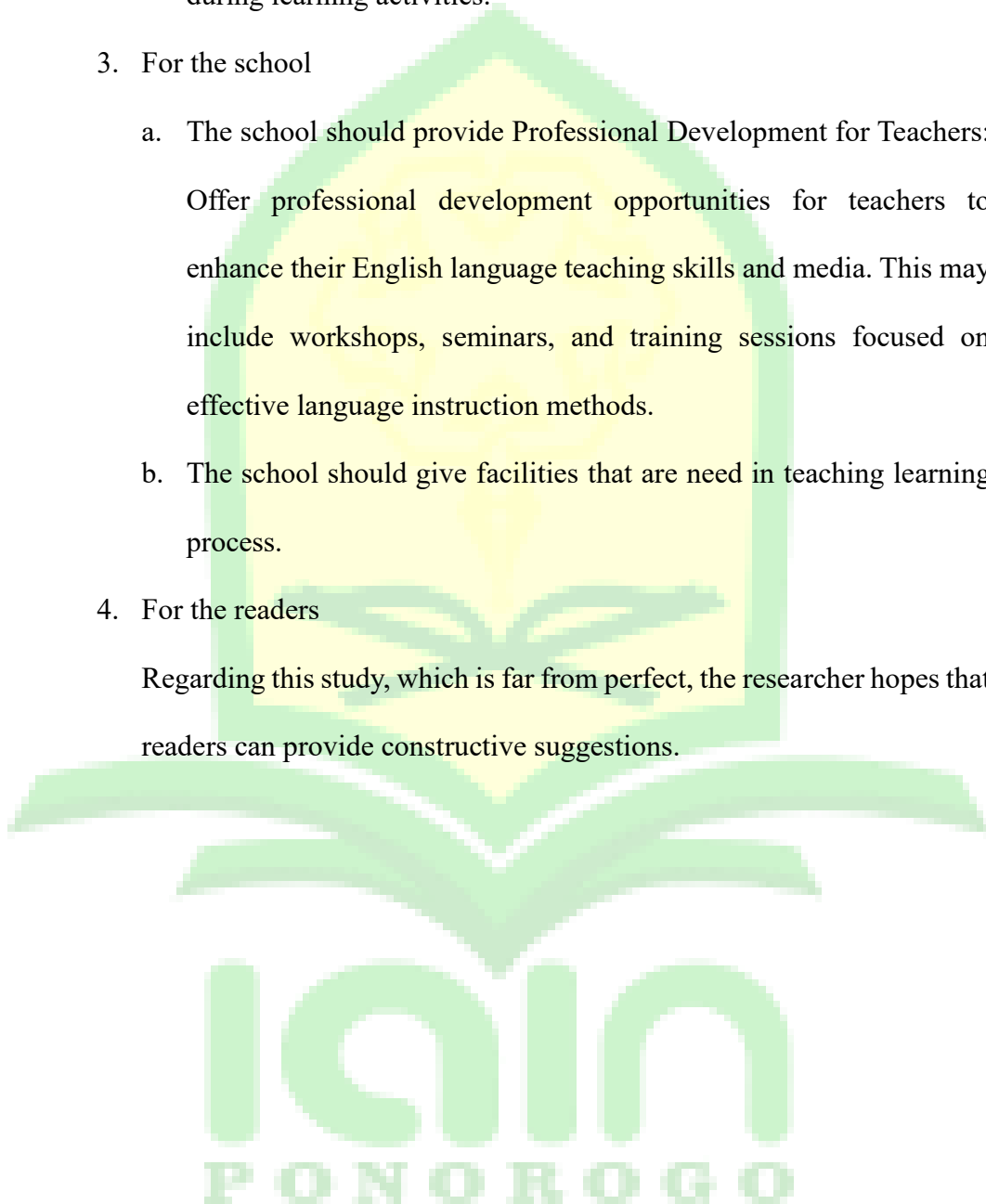
3. For the school

a. The school should provide Professional Development for Teachers: Offer professional development opportunities for teachers to enhance their English language teaching skills and media. This may include workshops, seminars, and training sessions focused on effective language instruction methods.

b. The school should give facilities that are need in teaching learning process.

4. For the readers

Regarding this study, which is far from perfect, the researcher hopes that readers can provide constructive suggestions.



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